

1
RING BINDER

This invention relates to a ring binder and, in particular, a ring binder adapted to be secured by at least one rivet to a base member.

Conventionally, a ring binder is securable to a cover by rivets having a head portion engageable with the cover and a tail portion which is deformable, e.g. by punching, to engage a barrel secured to an upper plate of the ring binder.

A disadvantage associated with such a conventional ring binder is that the assembling process is both laborious and prone to error. In the first place, it is necessary to provide the assemblers with rivets properly sized and shaped to fit both the barrels and the corresponding holes in the cover. The assemblers have to secure the ring binder to the cover by first inserting the rivet through the cover, then through the barrel in the ring binder and then to deform the tail of the rivet, e.g. by punching, to engage the upper plate of the ring binder.

It is therefore an object of the present invention to provide a ring binder in which the aforesaid shortcomings are mitigated. It is also a further object of the present invention to provide a rivet to mitigate the aforesaid problems.

According to a first aspect of the present invention, there is provided a ring binder adapted to be secured to a base member by at least one securing means, the ring binder comprising a substantially rigid upper structure supporting a pivotable lower structure to which a plurality of ring members are mounted, the securing means comprising firstly an engagement member for engaging the upper structure and secondly a plurality of securing elements for securing the base member characterized in that at least a majority of the securing elements generally extend away from the longitudinal axis of the engagement member.

Advantageously, at least 75% of the securing elements may generally extend away from the longitudinal axis of the engagement member.

Conveniently, substantially all the securing elements may generally extend away from the longitudinal axis of the engagement member.

Suitably, the securing elements may be positioned substantially equidistant from the longitudinal axis of the engagement member.

The longitudinal axis of the engagement member may advantageously be transverse to the longitudinal axis of the ring binder.

The securing elements may conveniently be deformable to secure the base member.

Each securing element may suitably comprise an arcuate sector.

Advantageously, the securing elements may depend downward from a plate member of the securing means.

Conveniently, the plate member may be adapted to abut against the base member.

Suitably, the plate member may be substantially parallel to the longitudinal axis of the ring binder.

The engagement member may advantageously comprise an upper end deformable to engage the upper structure.

The engagement member may conveniently be substantially upstanding.

The upper structure may suitably comprise a recess with which the upper end of the engagement member is deformable to engage.

Advantageously, the engagement member may be integrally formed with the securing elements.

Conveniently, the engagement member may be integrally formed with the plate.

2

Suitably, the plate may be integrally formed with the securing elements.

According to a second aspect of the present invention, there is provided a rivet adapted to secure a ring binder to a base member, the rivet comprising an engagement member for engaging the ring binder and a plurality of securing elements for securing the base member characterized in that at least a majority of the securing elements generally extend away from the longitudinal axis of the engagement member.

Advantageously, at least 75% of the securing elements may generally extend away from the longitudinal axis of the engagement member.

Conveniently, substantially all the securing elements may generally extend away from the longitudinal axis of the engagement member.

Suitably, the securing elements may be positioned substantially equidistant from the longitudinal axis of the engagement member.

The longitudinal axis of the engagement member may advantageously be transverse to the longitudinal axis of the ring binder.

The securing elements may conveniently be deformable to secure the base member.

Each securing element may suitably comprise an arcuate sector.

Advantageously, the securing elements may depend downward from a plate member of the securing means.

Conveniently, the plate member may be adapted to abut against the base member.

Suitably, the plate member may be substantially parallel to the longitudinal axis of the ring binder.

The engagement member may advantageously be integrally formed with the securing elements.

The engagement member may conveniently be integrally formed with the plate.

The plate may suitably be integrally formed with the securing elements.

The present invention will now be discussed in further detail and with reference to the accompanying drawings, wherein:

FIG. 1 shows an underside perspective view of a ring binder according to the present invention;

FIG. 2 shows an enlarged partial view of the ring binder shown in FIG. 1;

FIGS. 3A and 3B show top perspective and underside perspective views of the rivet shown in FIGS. 1 and 2;

FIG. 4 shows a transverse cross-sectional view of the ring binder shown in FIG. 1.

FIGS. 1, 2 and 4 show a ring binder according to the present invention, generally designated as 2, as comprising a substantially rigid curved upper plate 4 supporting a pair of elongate plates 6a and 6b pivotally moveable relative to each other. Secured to the elongate plates 6a and 6b are three ring members 8. At each end of the ring binder 2 is a lever 10 which may be pivoted outwardly, e.g. by a thumb, to act upon the underside of the elongate plates 6a and 6b and thereby to open the ring members 8 in the conventional manner. Engageable with an open depression 12 near each end of the curved upper plate 4 is a rivet 30.

As shown more clearly in FIGS. 3A and 3B, the rivet 30 comprises a cylindrical body 32 having a narrower head 34 which is deformable to engage the depression 12. The rivet 30 has a substantially flat plate 36 with a number of downwardly depending claws 38, which may be deformed to engage a cardboard or plastic (e.g. PVC) cover 40. The claws 38 are formed by being pushed out from the flat plate 36. The claws 38 extend away, and are positioned

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